Appendix A

RF Test Data for BT LE (Conducted Measurement)

Product Name: Smart LED Lamp

Test Model: E4B09

Environmental Conditions

Temperature:	23.8 ° C
Relative Humidity:	52.1%
ATM Pressure:	100.0 kPa
Test Engineer:	Taylor Hu Taylor Hu
Supervised by:	Lihu Li Huan

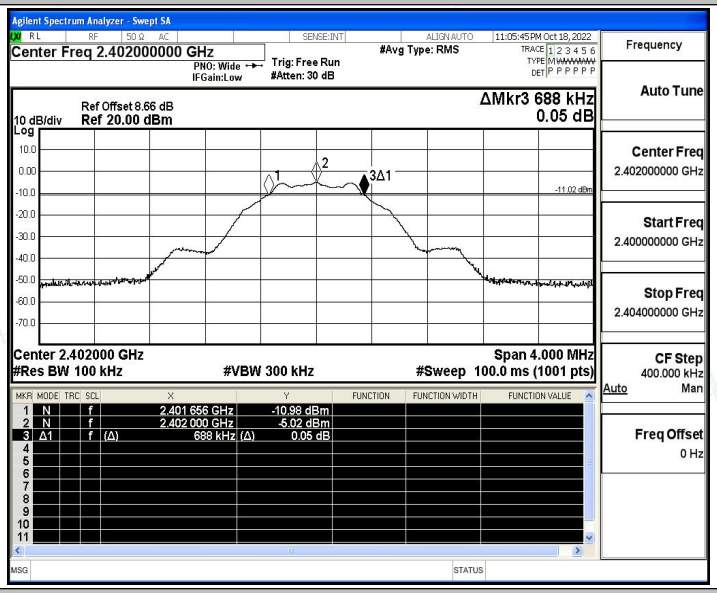
A.1 DTS Bandwidth

Test Result

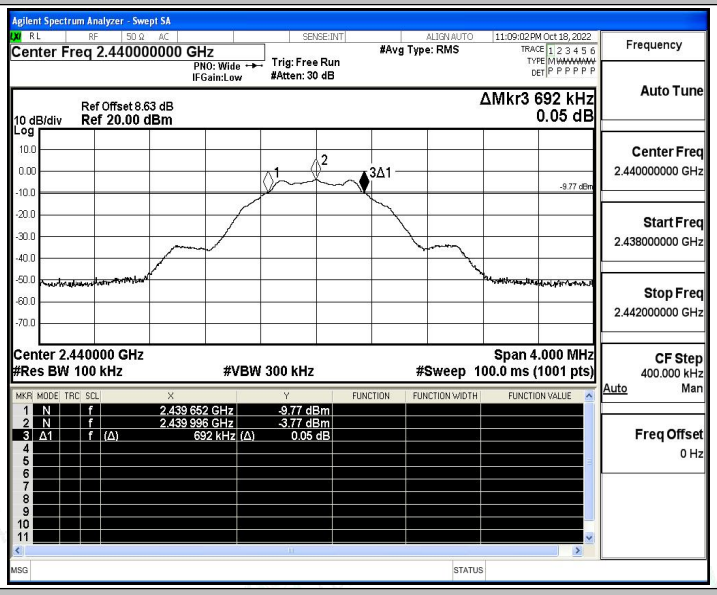
TestMode	Antenna	Channel	DTS BW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
BLE_1M	Ant1	2402	0.688	2401.656	2402.344	0.5	PASS
		2440	0.692	2439.652	2440.344	0.5	PASS
		2480	0.692	2479.652	2480.344	0.5	PASS
BLE_2M	Ant1	2402	1.148	2401.428	2402.576	0.5	PASS
		2440	1.148	2439.428	2440.576	0.5	PASS
		2480	1.152	2479.424	2480.576	0.5	PASS

Test Graphs

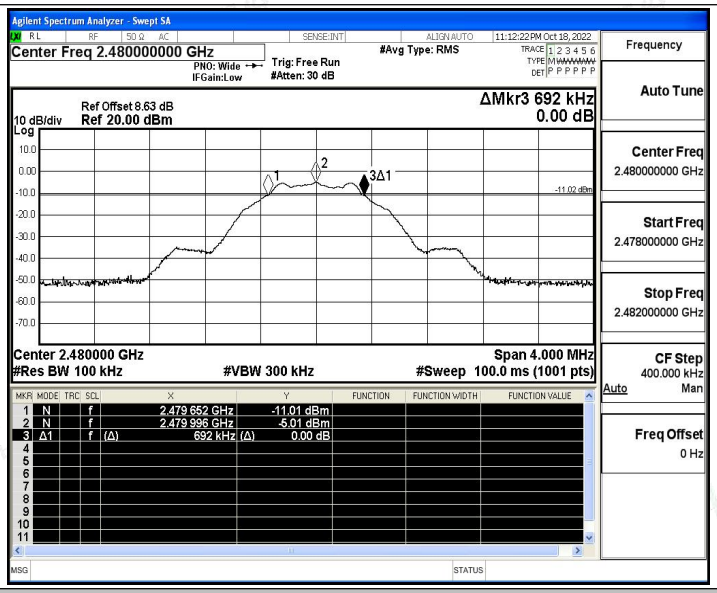
BLE_1M_Ant1_2402



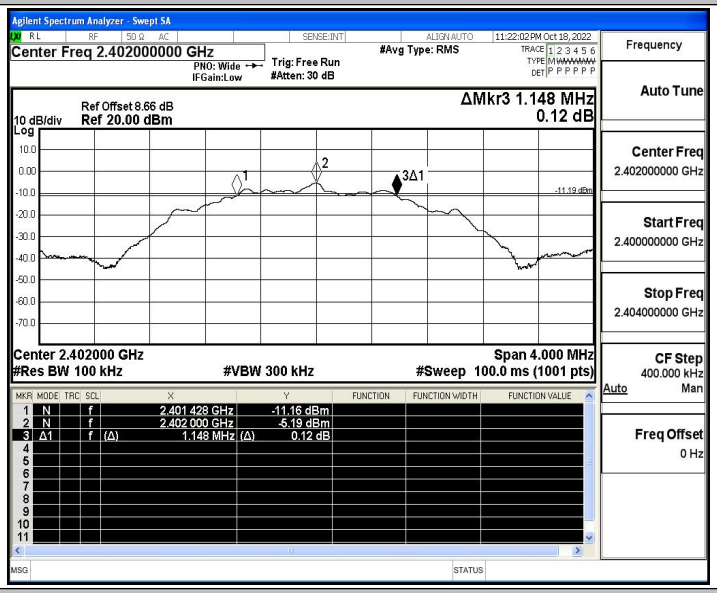
BLE_1M_Ant1_2440



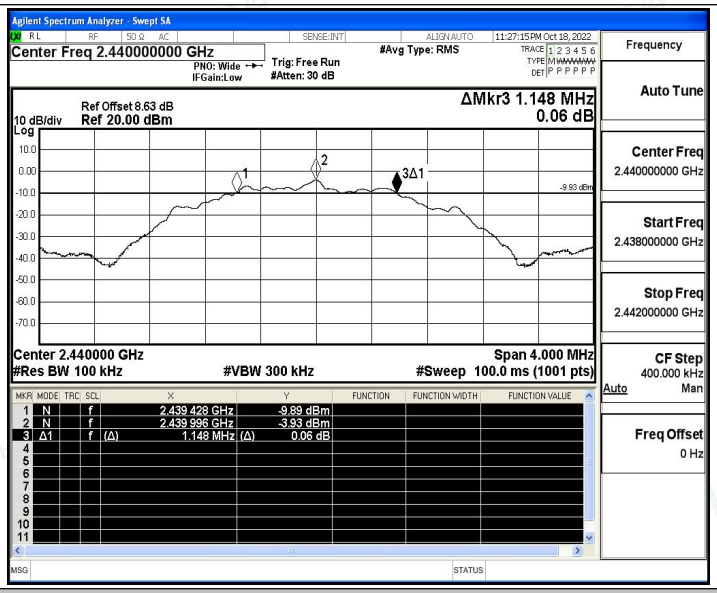
BLE_1M_Ant1_2480



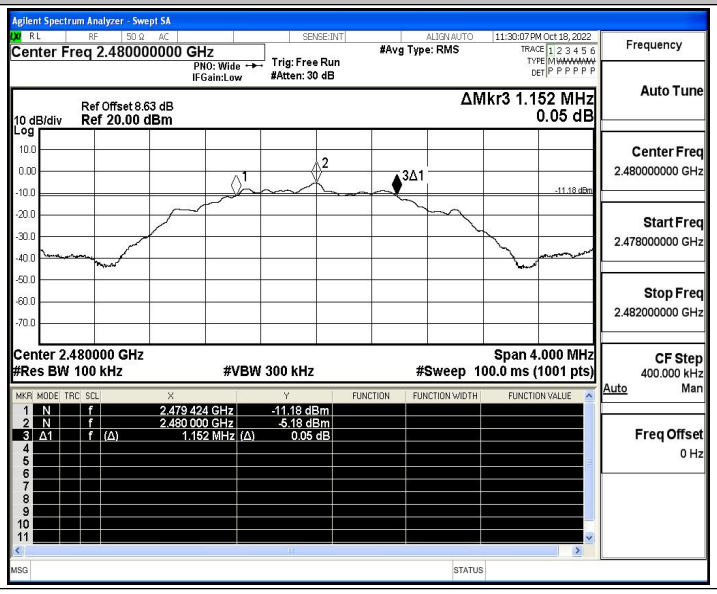
BLE_2M_Ant1_2402



BLE_2M_Ant1_2440



BLE_2M_Ant1_2480



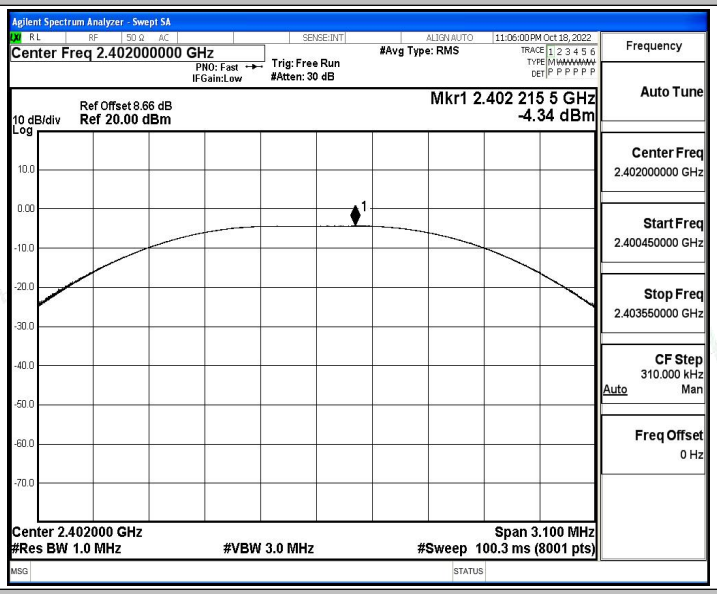
A.2 Maximum conducted output power

Test Result

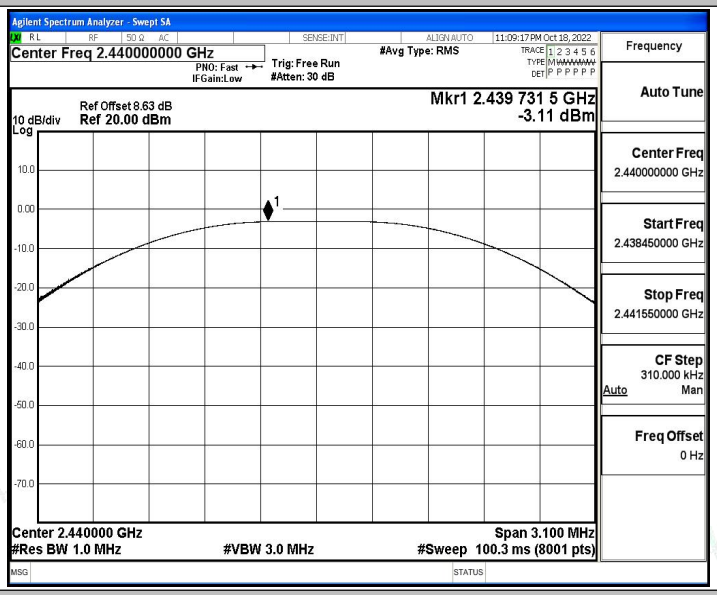
TestMode	Antenna	Channel	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	2402	-4.34	≤30	PASS
		2440	-3.11	≤30	PASS
		2480	-4.35	≤30	PASS
BLE_2M	Ant1	2402	-4.35	≤30	PASS
		2440	-3.15	≤30	PASS
		2480	-4.33	≤30	PASS

Test Graphs

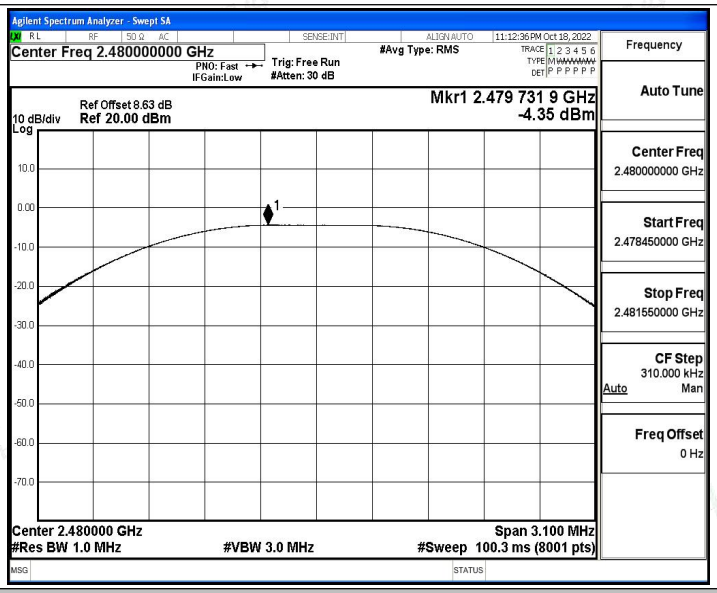
BLE_1M_Ant1_2402



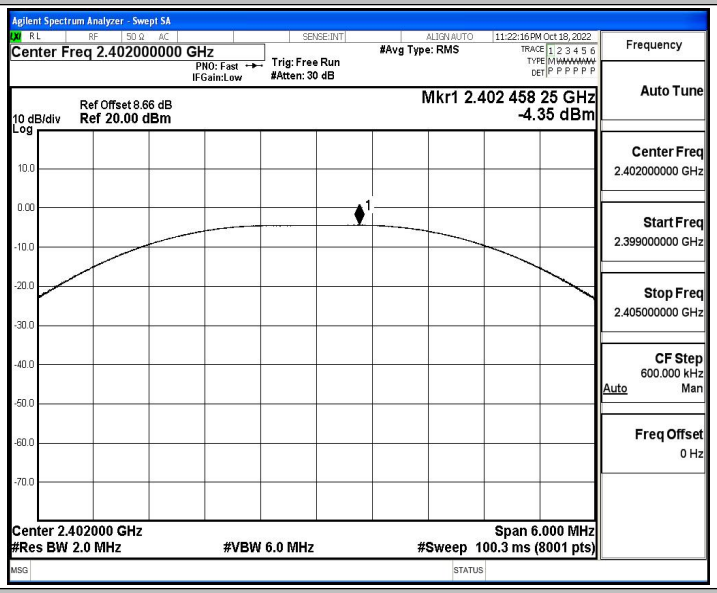
BLE_1M_Ant1_2440



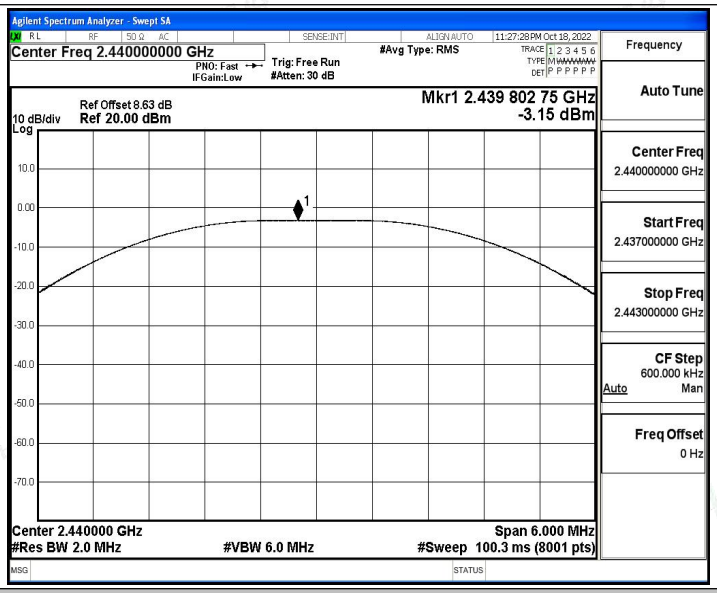
BLE_1M_Ant1_2480



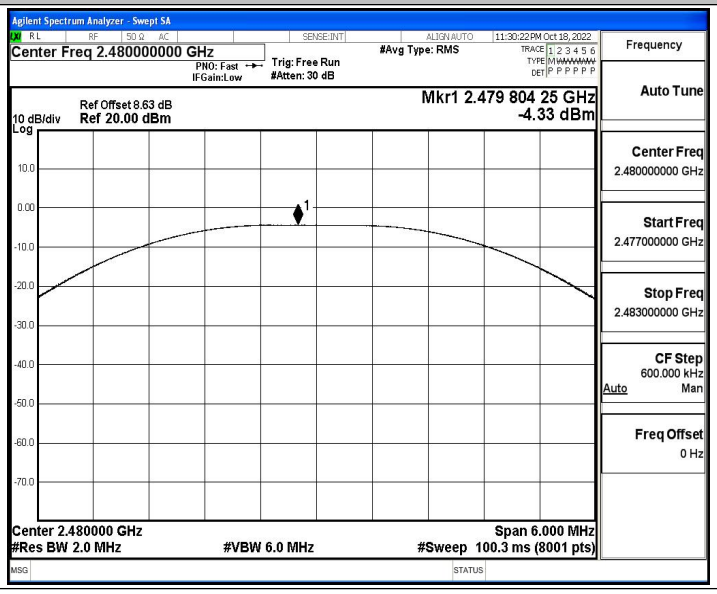
BLE_2M_Ant1_2402



BLE_2M_Ant1_2440



BLE_2M_Ant1_2480



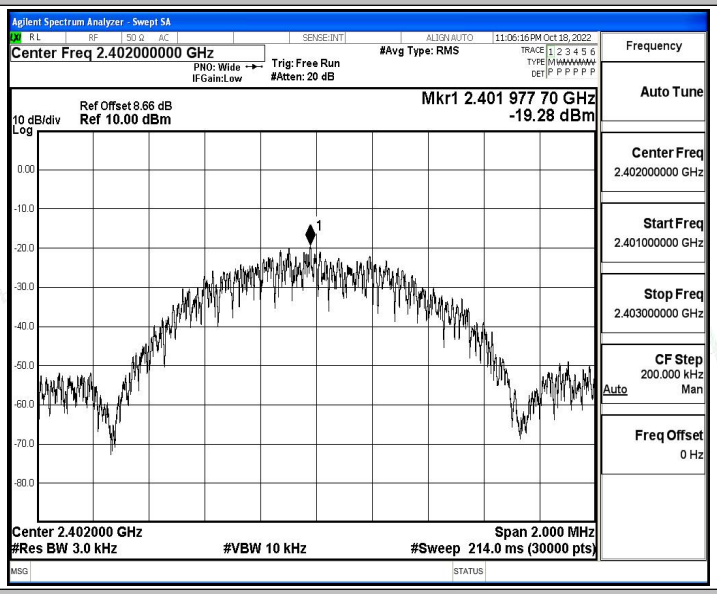
A.3 Maximum power spectral density

Test Result

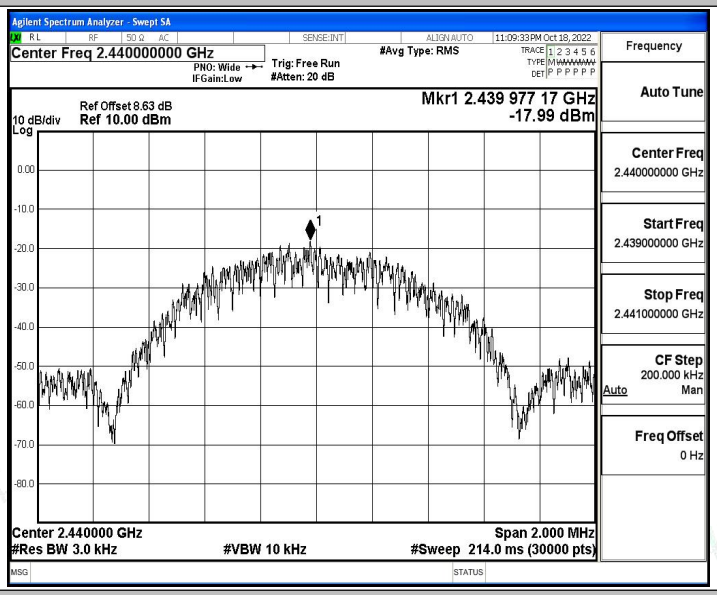
TestMode	Antenna	Channel	Result[dBm/3kHz]	Limit[dBm/3kHz]	Verdict
BLE_1M	Ant1	2402	-19.28	≤8.00	PASS
		2440	-17.99	≤8.00	PASS
		2480	-19.32	≤8.00	PASS
BLE_2M	Ant1	2402	-21.52	≤8.00	PASS
		2440	-20.31	≤8.00	PASS
		2480	-21.52	≤8.00	PASS

Test Graphs

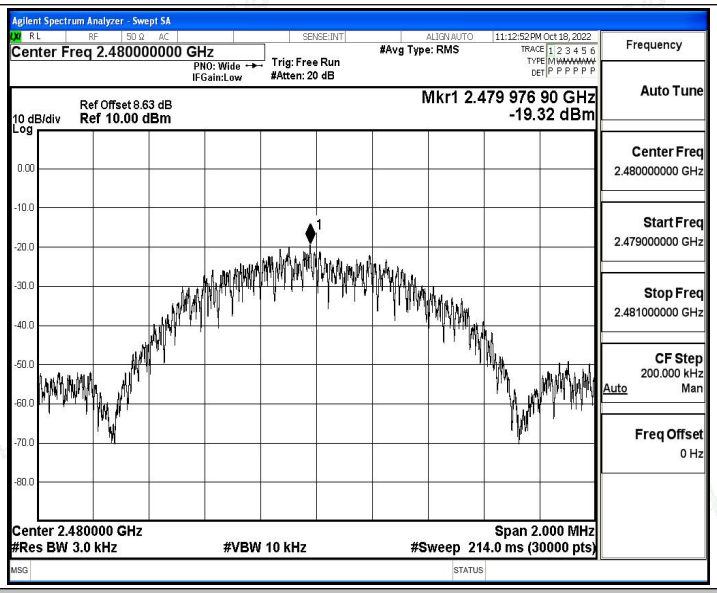
BLE_1M_Ant1_2402



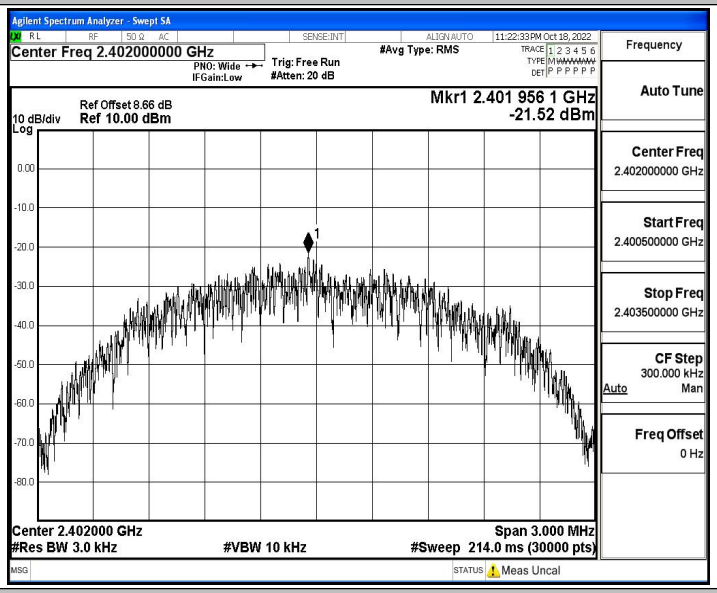
BLE_1M_Ant1_2440



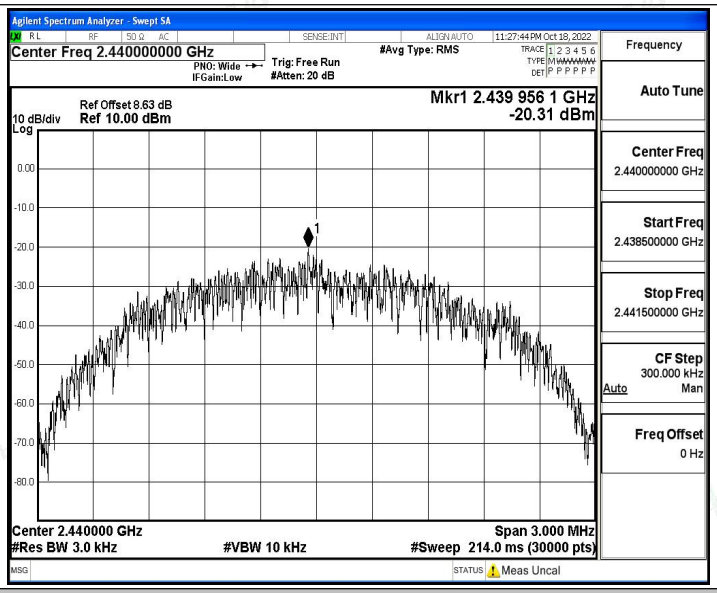
BLE_1M_Ant1_2480



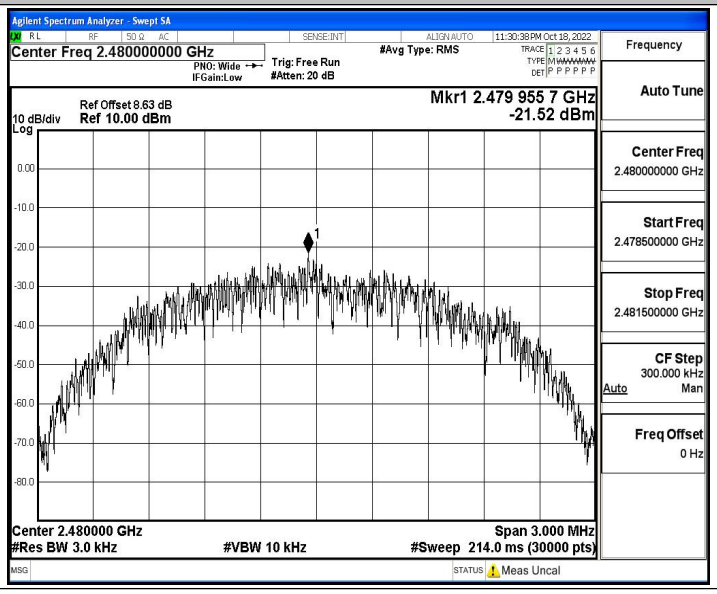
BLE_2M_Ant1_2402



BLE_2M_Ant1_2440



BLE_2M_Ant1_2480



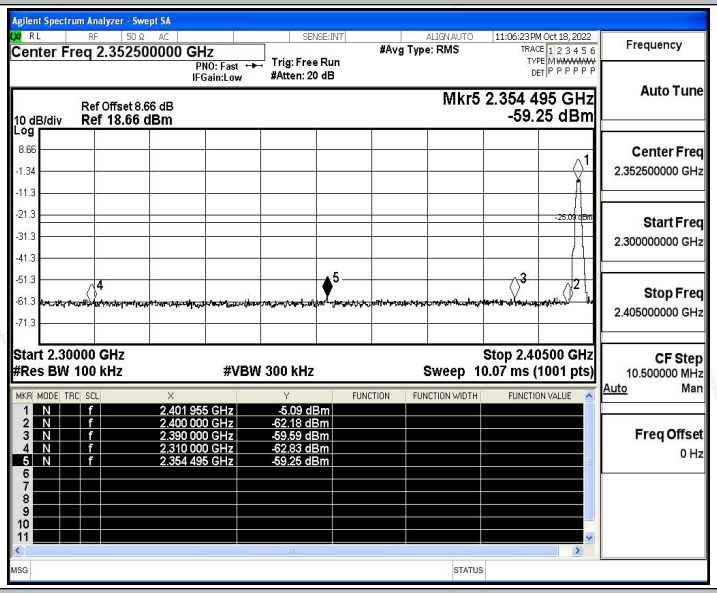
A.4 Band edge measurements

Test Result

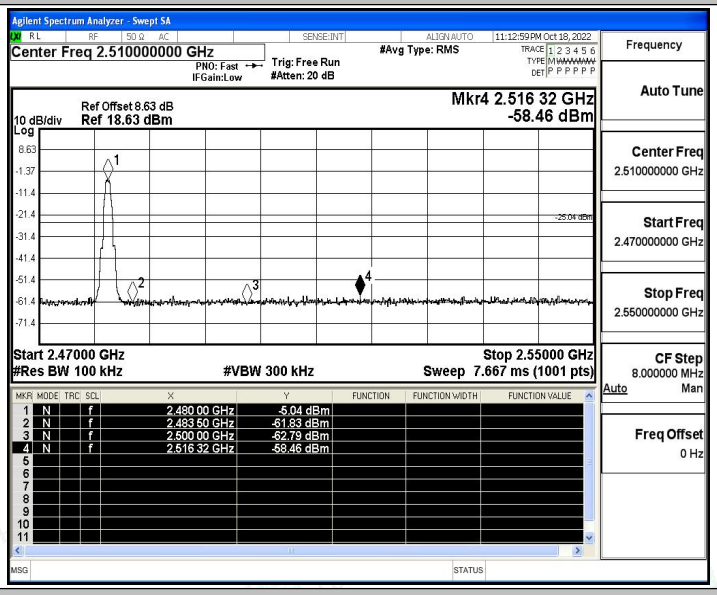
TestMode	Antenna	ChName	Channel	RefLevel[dBm]	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	Low	2402	-5.09	-59.25	≤-25.09	PASS
		High	2480	-5.04	-58.46	≤-25.04	PASS
BLE_2M	Ant1	Low	2402	-5.15	-36.62	≤-25.15	PASS
		High	2480	-5.60	-57.77	≤-25.6	PASS

Test Graphs

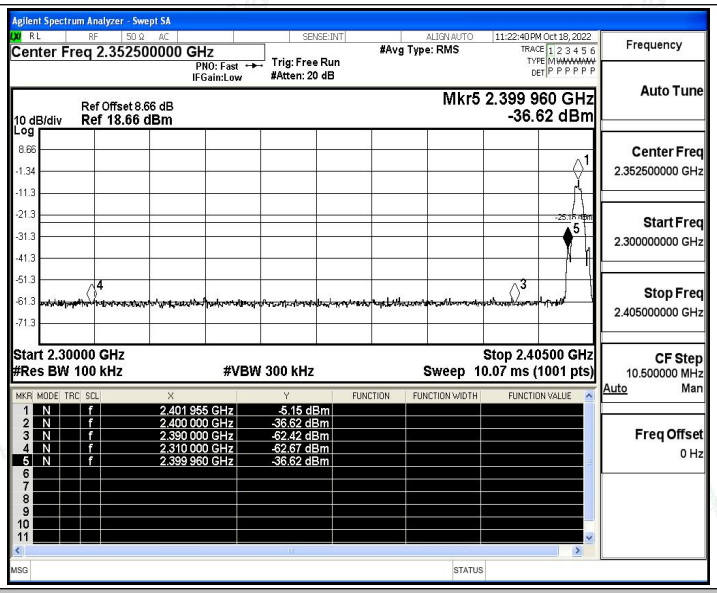
BLE_1M_Ant1_Low_2402



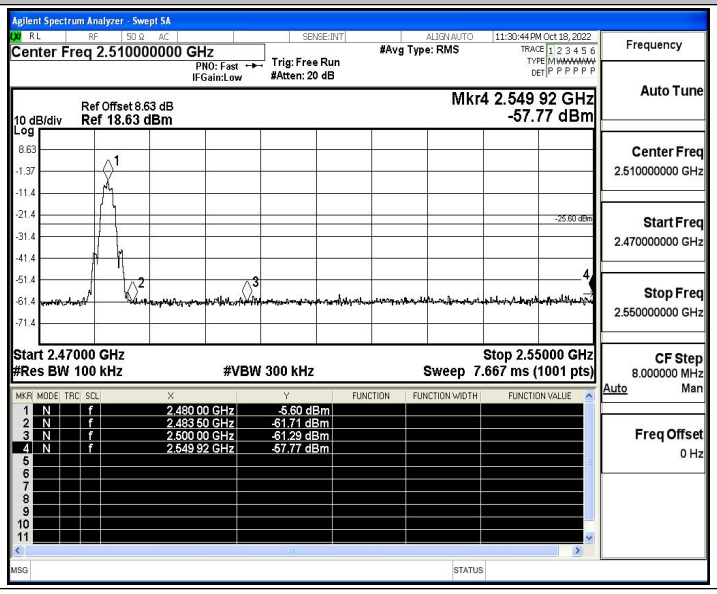
BLE_1M_Ant1_High_2480



BLE_2M_Ant1_Low_2402



BLE_2M_Ant1_High_2480



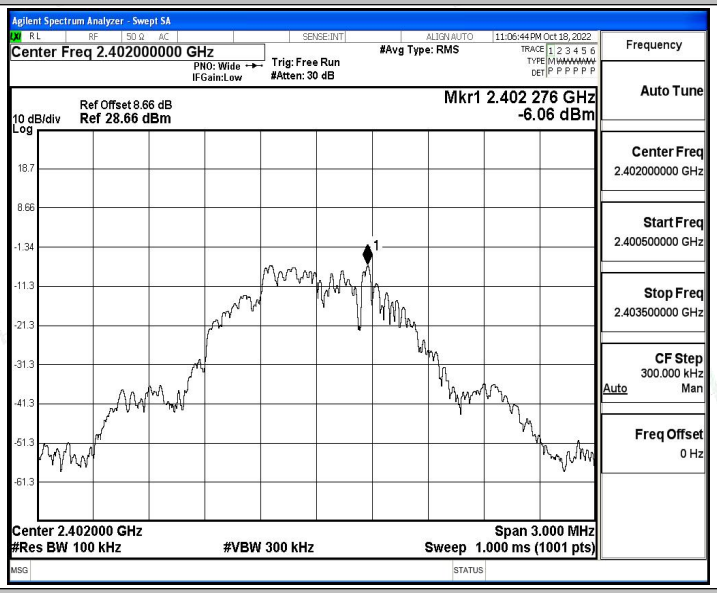
A.5 Conducted Spurious Emission

Test Result

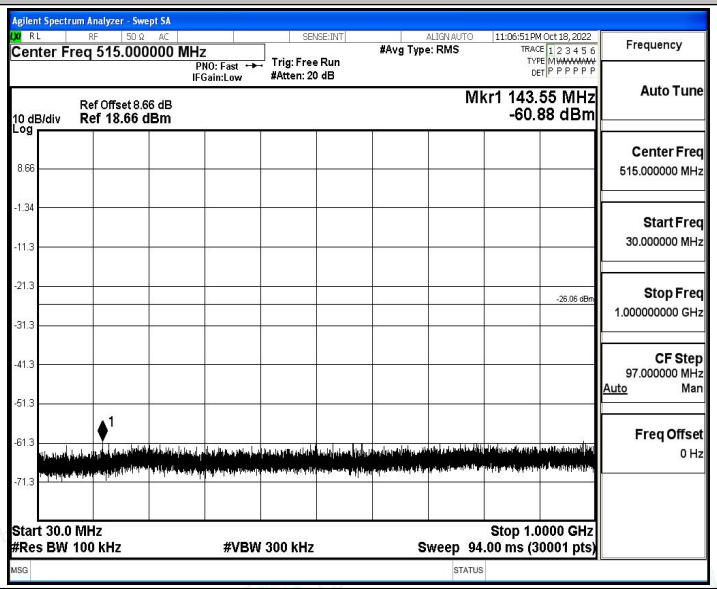
TestMode	Antenna	Channel	FreqRange [MHz]	RefLevel [dBm]	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	2402	Reference	-6.06	-6.06	---	PASS
			30~1000	-6.06	-60.88	≤-26.06	PASS
			1000~26500	-6.06	-45.91	≤-26.06	PASS
		2440	Reference	-4.93	-4.93	---	PASS
			30~1000	-4.93	-60.96	≤-24.93	PASS
			1000~26500	-4.93	-46.16	≤-24.93	PASS
		2480	Reference	-5.44	-5.44	---	PASS
			30~1000	-5.44	-60.53	≤-25.44	PASS
			1000~26500	-5.44	-46.16	≤-25.44	PASS
BLE_2M	Ant1	2402	Reference	-7.11	-7.11	---	PASS
			30~1000	-7.11	-60.4	≤-27.11	PASS
			1000~26500	-7.11	-46.02	≤-27.11	PASS
		2440	Reference	-6.37	-6.37	---	PASS
			30~1000	-6.37	-60.63	≤-26.37	PASS
			1000~26500	-6.37	-45.59	≤-26.37	PASS
		2480	Reference	-7.61	-7.61	---	PASS
			30~1000	-7.61	-60.68	≤-27.61	PASS
			1000~26500	-7.61	-46.07	≤-27.61	PASS

Test Graphs

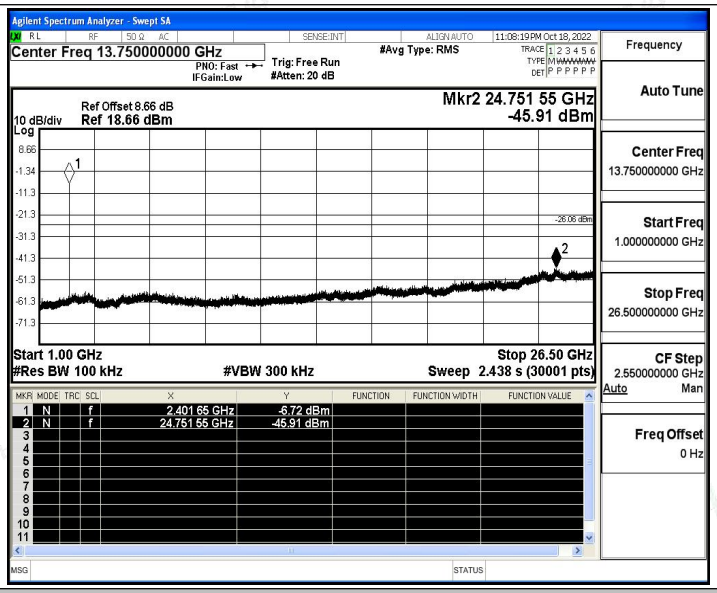
BLE_1M_Ant1_2402_0~Reference



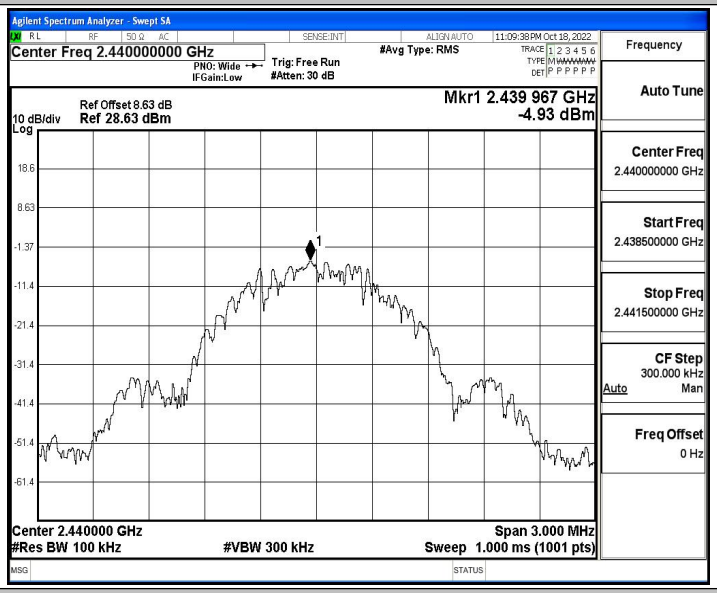
BLE_1M_Ant1_2402_30~1000



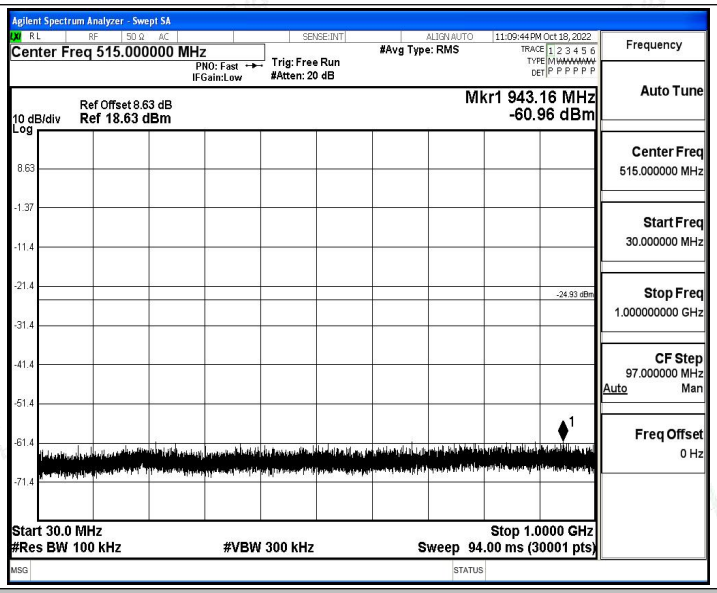
BLE_1M_Ant1_2402_1000~26500



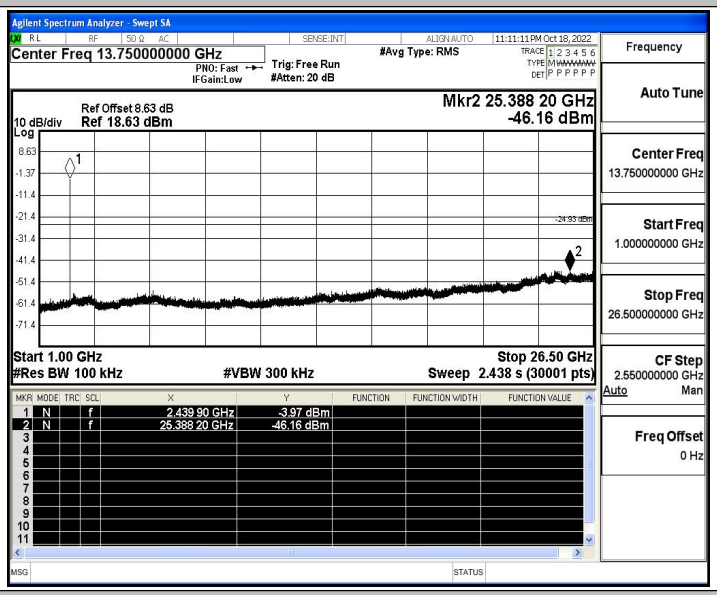
BLE_1M_Ant1_2440_0~Reference



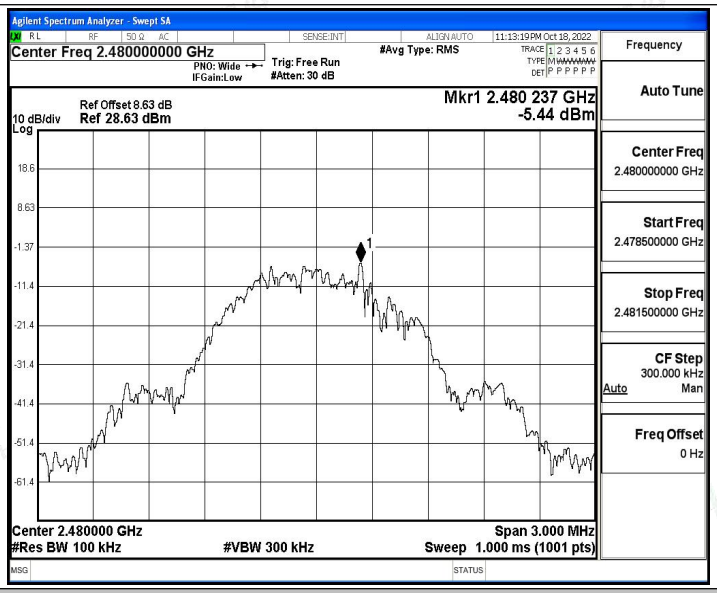
BLE_1M_Ant1_2440_30~1000



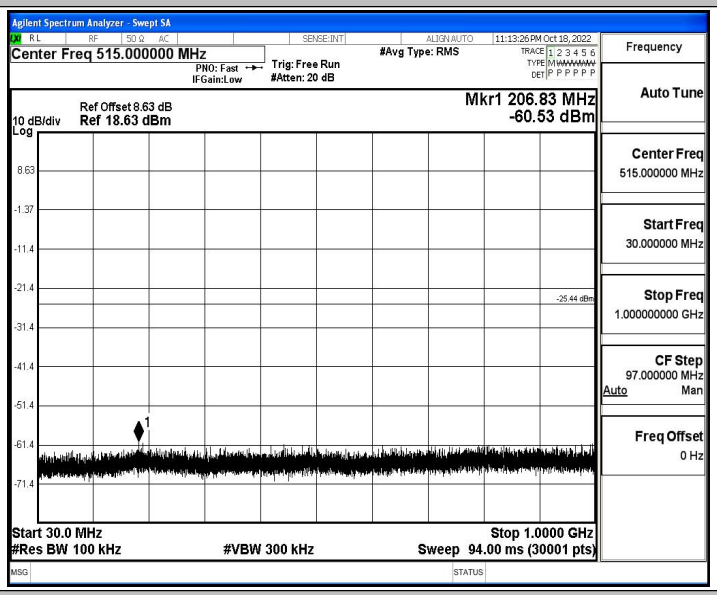
BLE_1M_Ant1_2440_1000~26500



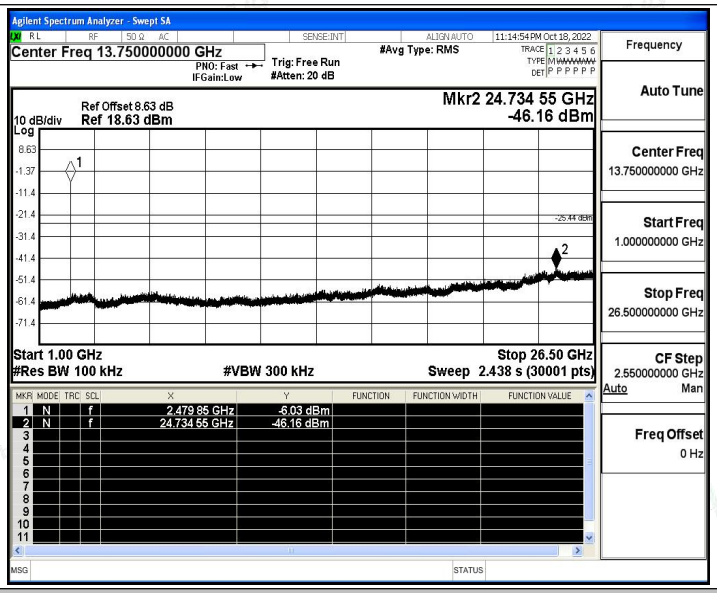
BLE_1M_Ant1_2480_0~Reference



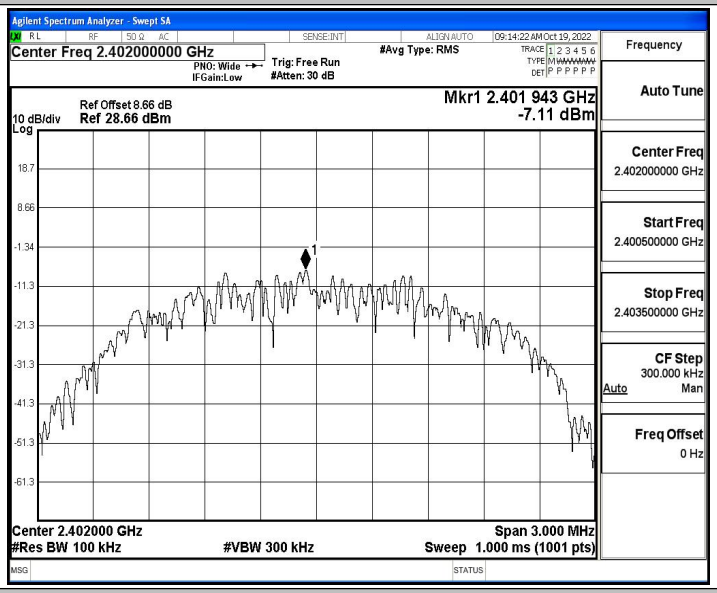
BLE_1M_Ant1_2480_30~1000



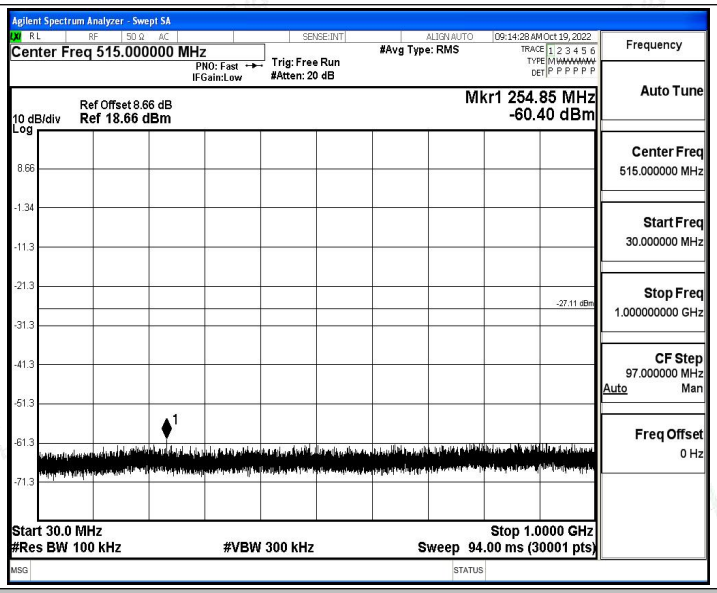
BLE_1M_Ant1_2480_1000~26500



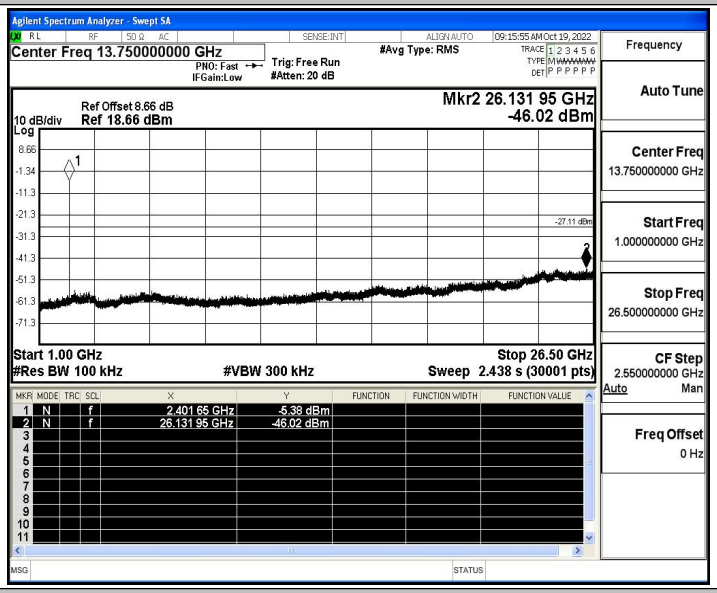
BLE_2M_Ant1_2402_0~Reference



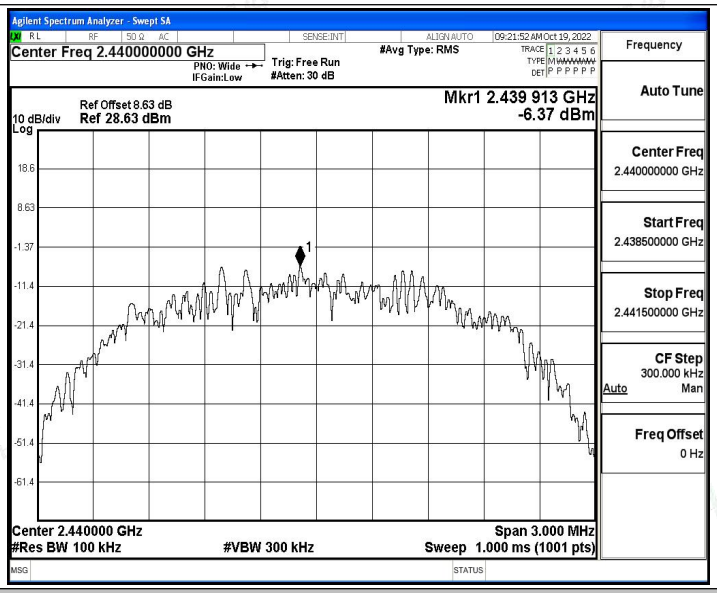
BLE_2M_Ant1_2402_30~1000



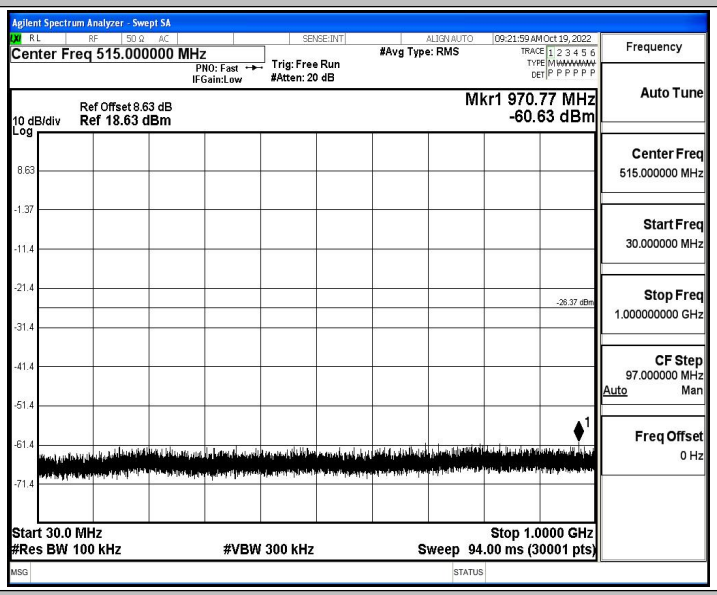
BLE_2M_Ant1_2402_1000~26500



BLE_2M_Ant1_2440_0~Reference



BLE_2M_Ant1_2440_30~1000



BLE_2M_Ant1_2440_1000~26500